Claims

1. An oral brush comprising:

a body comprising a handle and head;

a brush portion connected to the head of said body; and

a sustained-release matrix comprising a support resin, a water-soluble substance, and an anti-microbial agent.

2. The oral brush of claim 1 wherein said matrix is a template joined to said head.

3. The oral brush of claim 1 wherein said resin comprises ethylene vinyl acetate.

4. The oral brush of claim 1 wherein said water soluble substance comprises an organic polymer.

5. The oral brush of claim 4 wherein said polymer comprises polyethylene oxide.

6. The oral brush of claim 1 wherein said anti-microbial agent comprises chlorhexidine.

7. The oral brush of claim 1 wherein said resin comprises ethylene vinyl acetate, said water soluble substance comprises polyethylene oxide, and said anti-microbial comprises chlorhexidine.

8. The oral brush of claim 2 wherein said template is no greater than 4mm thick.

9. The oral brush of claim 1 wherein said template comprises between 50 percent and 90 percent by weight ethylene vinyl acetate; between 5 percent and 40 percent by weight polyethylene oxide; and between 1 percent and 30 percent by weight anti-microbial agent.

10. An oral brush comprising:

a body including a head and a handle;

a brush portion attached to said head; and

a sustained-release matrix comprising a polymer and an anti-microbial agent.

11. The oral brush of claim 10 wherein said sustained-release matrix is attached to said head.

12. The oral brush of claim 10 wherein said anti-microbial agent comprises chlorhexidine.

13. The oral brush of claim 10 wherein said polymer comprises a water-soluble polymer.

14. The oral brush of claim 13 wherein said water-soluble polymer comprises polyethylene oxide.

15. The oral brush of claim 10 wherein said polymer comprises a support resin.

16. The oral brush of claim 10 wherein said matrix comprises

a. a first layer including a water-soluble polymer and an anti-microbial agent, and

b. a second layer joined with said first layer and comprising a support resin.

17. The oral brush of claim 16 wherein said water-soluble polymer is polyethylene oxide.

18. The oral brush of claim 15 wherein said second layer further comprises a support resin.

19. The oral bush of claim 18 wherein said support resin is ethylene vinyl acetate.

20. The oral brush of claim 10 wherein said matrix comprises

a. a first layer comprises said polymer and said anti-microbial agent, wherein said polymer is a support resin, and

b. a second layer joined with said first layer and comprising a support resin.

21. The oral brush of claim 20 wherein said support resin comprises ethylene vinyl acetate.

22. A sustained-release matrix comprising:

a resin comprising ethylene vinyl acetate;

a water-soluble polymer comprising polyethylene oxide; and

an anti-microbial agent.

23. The matrix of claim 22 comprising between 50 percent and 90 percent by weight ethylene vinyl acetate; between 5 percent and 30 percent by weight polyethylene oxide; and between 3 percent and 30 percent by weight anti-microbial agent.

24. The matrix of claim 22 wherein said anti-microbial agent comprises chlorhexidine.

25. A sustained-release matrix comprising a first layer comprising a polymer and an anti-microbial agent, and a second layer joined to the first and comprising a support resin.

26. The matrix of claim 25 wherein said polymer in said first layer comprises a support resin.

27. The matrix of claim 25 wherein said polymer in first layer comprises a water soluble polymer.

28. A method of releasing an anti-microbial agent from an oral brush, comprising

providing an oral brush including a body with a handle and a head, a brush portion attached to said head, and a sustained-release matrix comprising a water insoluble resin, a water-soluble polymer, and an anti-microbial agent; and

contacting the portion of said brush including said matrix with water, causing said water-soluble polymer in said matrix to dissolve, thereby releasing said anti-microbial agent into said water.

29. The method of claim 28 further comprising inserting said portion of the brush including the matrix into the mouth of an animal, the saliva of the animal including water that causes said water-soluble polymer to dissolve thereby releasing said anti-microbial agent into said mouth.

30. The method of claim 28 wherein said anti-microbial agent is chlorhexidine.

31. The method of claim 28 wherein said resin comprises ethylene vinyl acetate.

32. The method of claim 28 wherein said water-soluble polymer comprises polyethylene oxide.

33. A method of releasing an anti-microbial agent into a mouth of an animal, comprising

providing a matrix including a resin, a water-soluble substance, and an anti-microbial agent; and

inserting said matrix into a mouth of an animal, said matrix releasing said anti-microbial agent into said mouth.

34. The method of claim 33 wherein said resin comprises ethylene vinyl acetate.

35. The method of claim 34 wherein said water-soluble substance comprises polyethylene oxide.

36. A wear-indicator oral brush, comprising

a body comprising a handle and head;

a brush portion connected to the head of said body; and

a matrix that is attached to said head of said body, said matrix comprising a colorant and a water-leachable substance that leaches into water when the oral brush is used to cause said matrix to change color after repeated uses.

37. The oral brush of claim 36 wh rein said water-leachable substance comprises a water-soluble polymer.

38. The oral brush of claim 37 wherein said water-soluble polymer is selected from the group consisting of polyethylene oxide, polyethylene glycol, and polyvinyl alcohol.

39. The oral brush of claim 36 wherein said matrix further comprises a water-insoluble support resin.

40. The oral brush of claim 39 wherein said support resin comprises ethylene vinyl acetate.

41. The oral brush of claim 39 wherein said water-leachable substance comprises said colorant.

42. The oral brush of claim 36 wherein said matrix comprises

a first layer comprising said water-soluble substance; and

a second layer joined with said first layer and comprising a water-insoluble support resin.

43. The oral brush of claim 42 wherein said second layer further comprises said colorant.

44. The oral brush of claim 42 wherein said first layer comprises said colorant.